

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method of producing metal particles, comprising:

jetting out a metal salt solution and a reducing agent solution from respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and

discharging the mixed reaction solution from a discharging port having a diameter smaller than a diameter of the mixing chamber,

wherein one of the metal salt solution and the reducing agent solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal to the straightly-going flow, to a position before a position where eddy viscosity generated by jetting the straightly-going flow into the mixing chamber would be maximum.
2. (original): The method according to Claim 1, wherein the straightly-going flow is in a thread line form.
3. (original): The method according to Claim 1, wherein a flow velocity of the orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the straightly-going flow when being jetted out.
4. (canceled).

5. (currently amended): A method of producing metal particles, comprising:
jetting out a metal salt solution and a reducing agent solution from respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and
discharging the mixed reaction solution from a discharging port having a diameter smaller than a diameter of the mixing chamber,
wherein one of the metal salt solution and the reducing agent solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal to the straightly-going flow, to a position within a range where a velocity V_z of the straightly-going flow is represented by the following formula (1), in a direction along which the maximum velocity of the straightly-going flow is exhibited when the straightly-going flow is jetted into the ~~mixing-camber~~ chamber:

Formula (1) $(1/10) V_{z0} < V_z < V_{z0}$

wherein V_{z0} represents a velocity of the straightly-going flow at an outlet of the nozzle in the direction along which the maximum velocity of the straightly-going flow is exhibited when the straightly-going flow is jetted into the ~~mixing-camber~~ chamber.

6. (original): The method according to Claim 5, wherein the straightly-going flow is in a thread line form.

7. (original): The method according to Claim 5, wherein a flow velocity of the orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the straightly-going flow when being jetted out.

8. (canceled).
9. (original): A method of producing metal fine-particles, comprising:
jetting out a metal ion-containing solution and a hydroxide ion-containing solution from
respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and
discharging the mixed reaction solution from a discharging port having a diameter
smaller than a diameter of the mixing chamber,
wherein one of the metal ion-containing solution and the hydroxide ion-containing
solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle
having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and
the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal
to the straightly-going flow, to a position before a position where eddy viscosity generated by
jetting the straightly-going flow into the mixing chamber would be maximum.
10. (original): The method according to Claim 9, wherein the metal fine-particles are
fine particles of metal hydroxide.
11. (original): The method according to Claim 9, wherein the straightly-going flow is
in a thread line form.
12. (original): The method according to Claim 9, wherein a flow velocity of the
orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the
straightly-going flow when being jetted out.
13. (canceled).
14. (canceled).

15. (currently amended): A method of producing metal fine-particles, comprising:
jetting out a metal ion-containing solution and a hydroxide ion-containing solution from
respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and
discharging the mixed reaction solution from a discharging port having a diameter
smaller than a diameter of the mixing chamber,
wherein one of the metal ion-containing solution and the hydroxide ion-containing
solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle
having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and
the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal
to the straightly-going flow, to a position within a range where a velocity V_z of the straightly-
going flow is represented by the following formula (1), in a direction along which the maximum
velocity of the straightly-going flow is exhibited when the straightly-going flow is jetted into the
mixing-~~amber~~ chamber:

Formula (1) $(1/10) V_{z0} < V_z < V_{z0}$

wherein V_{z0} represents a velocity of the straightly-going flow at an outlet of the nozzle
in the direction along which the maximum velocity of the straightly-going flow is exhibited
when the straightly-going flow is jetted into the mixing-~~amber~~ chamber.

16. (original): The method according to Claim 15, wherein the metal fine-particles
are fine particles of metal hydroxide.

17. (original): The method according to Claim 15, wherein the straightly-going flow
is in a thread line form.

18. (original): The method according to Claim 15, wherein a flow velocity of the orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the straightly-going flow when being jetted out.

19. (canceled).

20. (canceled).